

## VSUN295-60P

VSUN295-60P VSUN290-60P  
VSUN285-60P VSUN280-60P  
VSUN275-60P

18.17%

Module efficiency

12years

Material & Workmanship warranty

295W

Highest power output

25years

Linear power output warranty



PID-free



World class poly efficiency



Tighter product performance distribution and current sorting reduces the mismatch power loss in system operation



Positive tolerance offer



Good temperature coefficient enables higher output in high temperature regions



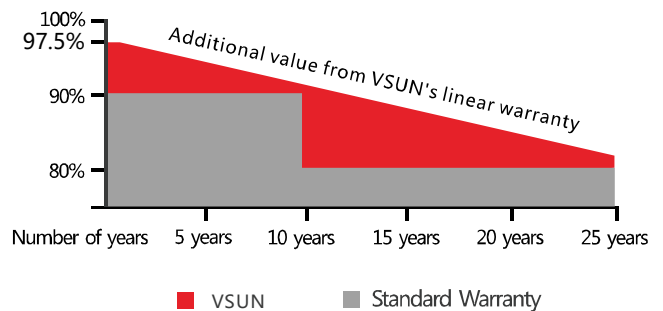
Excellent performance under low light conditions



Certified for salt/ammonia corrosion resistance



Load certificates: wind to 2400Pa and snow to 5400Pa



Munich RE 

•12-year product warranty  
•25-year linear power output warranty

Invested by Fuji Solar, VSUN is a Japanese solar module solutions provider located in Tokyo that offers Japanese quality solar technologies globally. The group's business started in Japan in 2006, later spreading to North America, Southeast Asia, and EMEA.

Innovative & Smart – VSUN has been committed to providing greener, cleaner, and more intelligent renewable energy solutions. It is focusing on the new energy market and the development of customized and high-efficiency products.

Note:

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A Sub-company of **FUJISOLAR**



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Module Type	VSUN295-60P	VSUN290-60P	VSUN285-60P	VSUN280-60P	VSUN275-60P
Maximum Power - Pmax (W)	295	290	285	280	275
Open Circuit Voltage - Voc (V)	38.8	38.7	38.6	38.5	38.4
Short Circuit Current - Isc (A)	9.64	9.56	9.49	9.36	9.27
Maximum Power Voltage - Vmpp (V)	32.1	31.8	31.6	31.4	31.3
Maximum Power Current - Impp (A)	9.19	9.12	9.02	8.91	8.79
Module Efficiency	18.17%	17.86%	17.55%	17.25%	16.94%
Standard Test Conditions (STC): irradiance 1,000 W/m²; AM 1.5; module temperature 25°C. Tolerance of Pmpp: 0~+3%.					
Measuring uncertainty of power: ±3%.					

Module Type	VSUN295-60P	VSUN290-60P	VSUN285-60P	VSUN280-60P	VSUN275-60P
Maximum Power - Pmax (W)	216.9	213.5	210.1	206.2	202.7
Open Circuit Voltage - Voc (V)	35.8	35.7	35.6	35.5	35.6
Short Circuit Current - Isc (A)	7.78	7.72	7.66	7.56	7.48
Maximum Power Voltage - Vmpp (V)	29.6	29.4	29.2	29.1	28.9
Maximum Power Current - Impp (A)	7.33	7.26	7.2	7.09	7.01
Normal Operating Cell Temperature( NOCT) : irradiance 800W/m <sup>2</sup> ; wind speed 1 m/s ; cell temperature 45°C; ambient temperature 20°C.					
Measuring uncertainty of power: ±3%.					

NOCT	45°C ( ±2°C )	Maximum System Voltage [V]	1000
Voltage Temperature Coefficient	-0.292%/°C	Series Fuse Rating [A]	20
Current Temperature Coefficient	+0.045%/°C		
Power Temperature Coefficient	-0.408%/°C		

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Voltage Temperature Coefficient	-0.292%/°C	Series Fuse Rating [A]	20
Current Temperature Coefficient	+0.045%/°C		
Power Temperature Coefficient	-0.408%/°C		

Dimensions	1640×990×35mm (L×W×H)
Weight	18.3kg
Frame	Anodized aluminum profile
Front Glass	White toughened safety glass, 3.2 mm
Cell Encapsulation	EVA (Ethylene-Vinyl-Acetate)
Back Glass	Composite film
Cells	6×10 pieces polycrystalline solar cells series strings (156.75mm×156.75mm)
Junction Box	Rated current≥13A, IP≥67, TUV&UL
Cable&Connector	Length 900 mm, 1×4 mm <sup>2</sup> , compatible with MC4

Dimensions(L×W×H)	1680×1110×1120mm	Temperature Range	-40 °C to + 85 °C
Container 20'	360	Withstanding Hail	Maximum diameter of 25 mm with impact
Container 40'	840		speed of 23 m/s
Container 40'HC	910	Maximum Surface Load	5,400 Pa
		Application class	class A

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Note: nm(inch)

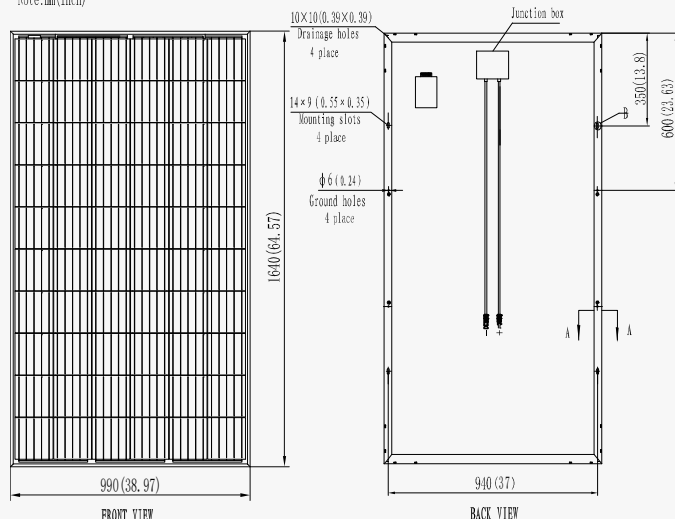


Figure 10 consists of two graphs showing the J-V characteristics of the device. The top graph plots Current/A (0 to 10) against Voltage/V (0 to 40) for AM1.5, 1000W/m². The curves are for temperatures: 10°C, 25°C, 40°C, 55°C, and 70°C, with Pmpp values of 313W, 295W, 277W, 259W, and 240W respectively. The bottom graph plots Current/A (0 to 10) against Voltage/V (0 to 40) for 25°C, with power densities of 1000W/m², 800W/m², 600W/m², 400W/m², 200W/m², and 100W/m². Both graphs include an inset showing Power density/mW/cm² (0 to 10) against Voltage/V (0 to 20) for the 1000 W/m² case.